

Golden LEAF Rural Broadband Initiative

Joe Freddoso

Federal Stimulus

- ARRA provides \$7.2B to enhance broadband access
 - \$4.5 B to Commerce BTOP
 - \$2.7 B to Agriculture RUS
 - **All Capital Funds – No Operating Funds**

- Why did MCNC apply?
 - Ensure NCREN's capacity to provide efficient service and maintain low cost to our public schools, Universities and Community Colleges
 - Assist state with implementation of Healthcare Information Exchange with ITS.
 - Bring middle mile closer to underserved consumers and small businesses – Help still needed to reach last mile in some areas.

Round 1 – Funding

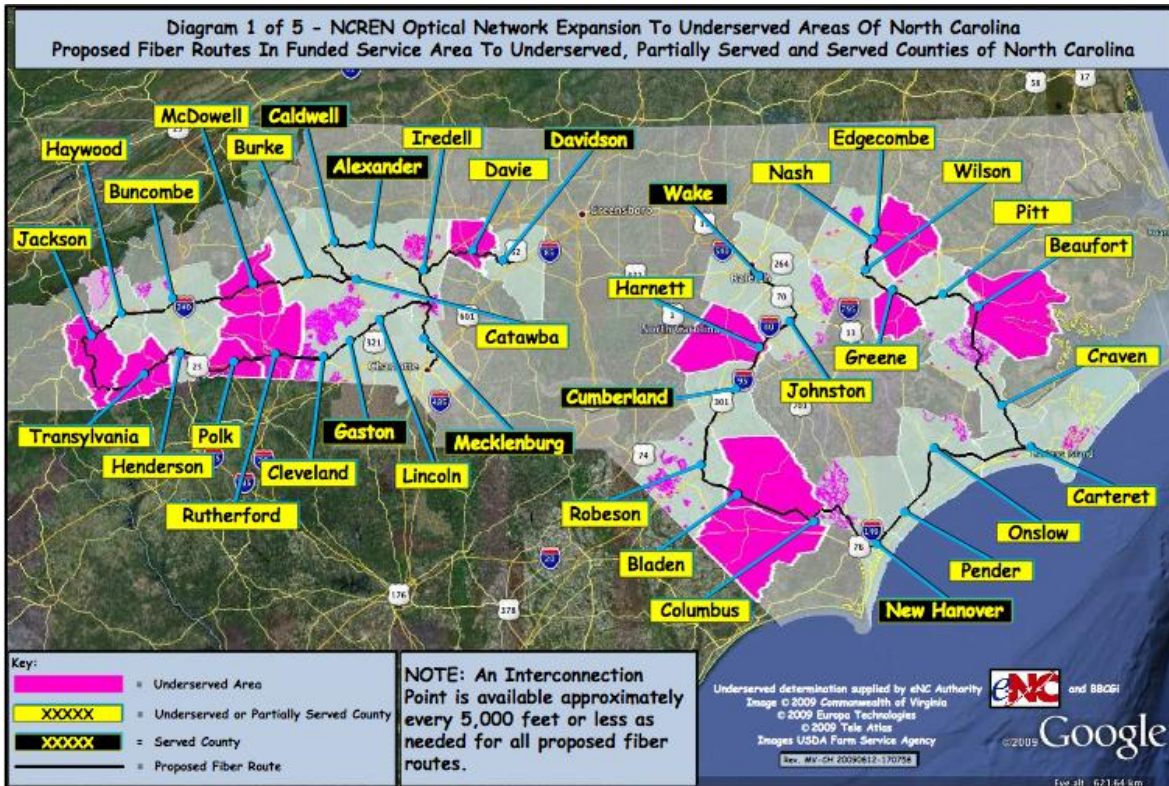
- \$28.2M request, \$11.7M match
 - Uses no State Funds
 - \$7.7M From MCNC Endowment
 - \$4M From Bandwidth Wholesaler PalmettoNet
- 37 Rural Counties – 24 fully or partially underserved
 - Private partner reaches last mile consumers
- 250 Jobs

Round 1 Cost Avoidance

	Lease	Ownership IRU	Permanent
Projected Use	\$85,360,000	\$23,839,000 Providers would not allow	\$39,900,000 (Capital, O&M and refresh)

* Round 1 Award – Covered \$28.7M of the capital

Middle Mile Build



Underserved Total:

Beaufort
Bladen
Columbus
Davie
Edgecombe
Greene
Harnett
Jackson
McDowell
Polk
Rutherford
Transylvania

Underserved Partial:

Carteret
Craven
Johnston
Onslow
Pender
Robeson
Buncombe
Catawba
Cleveland
Haywood
Iredell
Lincoln



Round 2: Funding

- \$106M for 1800+ Miles of fiber
 - Frank Hawkins Kenan Institute and MCNC led the application
 - \$30M Match
 - \$24M from Golden LEAF Foundation
 - 1200 jobs
- 4 Underserved areas remain
 - Northeast, North Central, Northwest, South Central
- Direct fiber to 179 community anchor institutions
 - Community Colleges and Libraries
 - Covers existing contracts to sustain the network
 - \$2M to sustain (O&M and Refresh)

Round 2 Map

Golden LEAF Rural Broadband Initiative

Golden LEAF Rural Broadband Initiative - 1694.53 Miles In Proposed Funded Service Area (PFSA)

179 Community Anchor Institutions To Be Directly Connected To The North Carolina Research And Education Network (NCREN) across 69 counties (67 completely or partially underserved)



Golden LEAF
FOUNDATION



BROADBANDUSA
CONNECTING AMERICAN COMMUNITIES

- Proposed Fiber Route BTOP Round Two
- Proposed Fiber Route BTOP Round One
- Existing North Carolina Research and Education Network
- Underserved Counties, Census Tracts in PFSA
- Served Counties, Census Tracts in PFSA
- Proposed Optical Transport Node - 40 Channels
- Community Anchor Institutions To Be Directly Connected To NCREN

Underserved determination supplied by eNC Authority and BBOGI. Additional data and support provided by NCORE (a program of the Kenan Institute).



MCNC is the independent, non-profit organization that operates the North Carolina Research And Education Network (NCREN).



MCNC



Counties in round 2

Encompass 32,597 square miles or 67% of NC's total square miles

Geographic Area(s) Alleghany, Anson, Ashe, Avery, Beaufort, Bertie, Brunswick, Buncombe, Cabarrus, Caldwell, Camden, Carteret, Caswell, Chatham, Chowan, Cleveland, Columbus, Craven, Cumberland, Currituck, Dare, Edgecombe, Franklin, Gaston, Gates, Graham, Granville, Halifax, Harnett, Haywood, Henderson, Hertford, Hyde, Jackson, Lee, Lincoln, Madison, Martin, McDowell, Mecklenburg, Mitchell, Moore, Nash, New Hanover, Northampton, Onslow, Pasquotank, Perquimans, Person, Pitt, Polk, Richmond, Robeson, Rockingham, Rutherford, Scotland, Stokes, Surry, Swain, Transylvania, Tyrrell, Union, Vance, Wake, Warren, Washington, Watauga, Wilson, and Yancey counties.

Advantages to NCREN Connectors

- Stable costs through owned “dark fiber”
- 170 Community Anchor Institutions – Direct Fiber
- Non profit model reduces costs
- Intranet performance for latency sensitive applications and research

Critical Success Factors

- Stable operating funds from NCREN Connectors
- Last mile public/private partnerships
- Statewide help from all levels of government and all agencies to facilitate build

For Rural Broadband

- This is middle mile-not last mile
- Need to build public/private partnerships to reach areas like Avery/Tyrrell/Hyde/Washington
- MCNC will have the fiber assets to help but we need to be part of a plan, not the entire solutions